

MAINTAIN WATER FOR LYNCHBURG

Vast Amount of Work Nearing Completion to Supply City With Pure Water.

WAS A GREAT UNDERTAKING

Has Taken Several Years for the Work and Cost Will Approximate Million.

[Special to The Times-Dispatch.]
LYNCHBURG, VA., February 16.—The city of Lynchburg has completed a magnificent concrete block dam across Pedlar River, in the northern part of Amherst county, about twenty miles from the city, which is planned to yield daily about 8,000,000 gallons of water. The dam has a straight axis, and is about 400 or 500 feet long on the crest, and has a maximum height of about seventy-five feet. It has a spillway 150 feet long, and about eight or ten feet below the crest, which has granite steps from four to 6 feet apart vertically, and is about forty-nine feet wide at base; maximum width of crest, twelve feet.

It was thought possible that a flaw over the spillway would attain a depth of six feet in extreme flood, which would tend to produce a vacuum under the falling water; provision was made to prevent unbalanced atmospheric pressure, which, under extreme flood conditions, would add tons per running foot of dam to the water pressure. This is relieved by the introduction of a horizontal six-inch pipe running through the concrete close to the face of each step, both ends of which are open and project beyond face of wing walls, and outlets are made from the pipe in the face of the masonry. This provision is regarded by the engineers as especially desirable on account of the height of overflow—sixty feet—which is among the highest yet constructed.

The top surface of the spillway steps and the crest of the dam are made of tough blue granite.

The spillway steps are made of rock-face stones, twenty to thirty inches thick and five to seven feet long, the beds being about the depth of the stone. The stones are set into the concrete to form a strong bond, and are laid with one-inch joints. The stones in the crest are two and a half feet thick, and are bound together with about one-inch twisted steel pins.

On south end of dam is a beautiful gate-house, about eighteen by thirty feet, made integral with dam masonry, and is built above the top of the dam with granite walls and metal roof. The construction of the dam required a total excavation of 4,500 cubic yards of earth and about 2,000 cubic yards of concrete to form a strong bond, and are laid with one-inch joints. The stones in the crest are two and a half feet thick, and are bound together with about one-inch twisted steel pins. The gate-house, about eighteen by thirty feet, made integral with dam masonry, and is built above the top of the dam with granite walls and metal roof. The construction of the dam required a total excavation of 4,500 cubic yards of earth and about 2,000 cubic yards of concrete to form a strong bond, and are laid with one-inch joints. The stones in the crest are two and a half feet thick, and are bound together with about one-inch twisted steel pins.

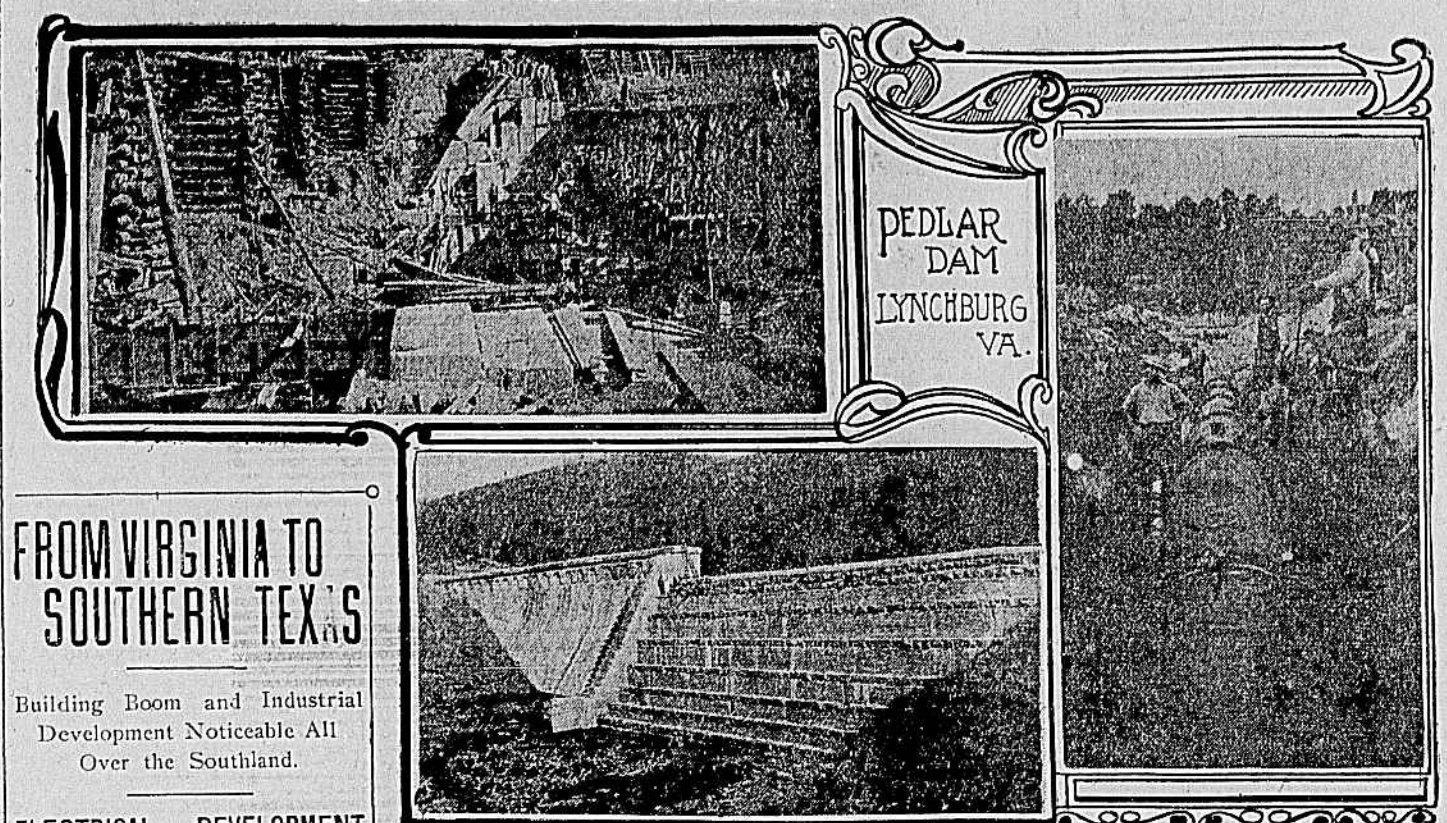
According to the engineer's report, Pedlar River has a minimum flow of about 2,000,000 gallons per day, the channel being about twenty-five feet wide and two feet deep. The sand used on the work was dug from the bottom of the reservoir about one-half mile above the dam. The sand contained about 20 per cent. of clay, sand and vegetable matter. It was washed, and this amount was reduced to about 3 per cent., thus furnishing a clean sand for mortar. The washed sand was then shoveled by hand into wagons and hauled by teams three-quarters of a mile to storage bins.

Up Mountain and Down.

Cement was delivered by railroad at Buena Vista, Va., and hauled by a steam tram-way to within about one-half mile of the top of Blue Ridge mountains, where storage was provided for several carloads. From this point it was hauled as far as possible by means of mules drawn by two to six horses or mules to the top of the mountains, and thence five miles down the mountains, descending about 1,800 feet to the dam. This was a very expensive part of the work, the road being very rough, both wagons and teams gave out after comparatively short service. A considerable number of horses and mules have been lost by accidents. About twenty-five to thirty carloads of cement was kept stored at the dam, this being about two weeks' supply. The mules are handled and emptied into the concrete forms by boom derricks, which are fastened to crib work twenty feet above the track. The derricks are rigged with wire guys and tackles, and are operated with hoisting engines. The shape and dimensions of the concrete form is determined by the resident engineer, Mr. P. B. Winfree, who locates them so that each form shall set at least six days before any adjacent form is made. The average size of a form is about fifty cubic yards, it being required that no form must be larger than can be completed on the day in which it is commenced. In getting a foundation for the dam the effluence was carried to sound rock, and its surface was dressed, and rough quarry stones weighing from 150 to 6,000 pounds, were lowered into the concrete forms, and while suspended were thoroughly washed by a hose. As much of this class of stone was used as possible in order to strengthen the work and cheapen the cost. Work was begun in July, 1904. The contract price of the dam alone was \$102,000. The dam was designed by Mr. James H. Purjes, consulting engineer of New York; Chief Engineer Harry J. Shaffer, of Lynchburg, and Mr. P. B. Winfree, resident engineer of dam and pipeline. Chauncey G. Williams, Esq., of New York, is the contractor. The work was thoroughly inspected from start to finish by resident engineer.

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MANY MILES OF PIPE LINES TO SUPPLY LYNCHBURG WITH PURE WATER FROM THE BLUE RIDGE MOUNTAINS



FROM VIRGINIA TO SOUTHERN TEXAS

Building Boom and Industrial Development Noticeable All Over the Southland.

ELECTRICAL DEVELOPMENT

Brief Summary of Industrial Enterprises Being Put on Foot in Dixie.

[Special to The Times-Dispatch.]
BALTIMORE, MD., February 16.—In this week's issue the Manufacturer's Record states that the movement for the utilization in electric development of water powers which has made such headway in Virginia, the Carolinas, Georgia and other States, extending, and that three such enterprises are under way for Kentucky streams. One involving the leasing of land and surplus water at Lock Five, on the Green River, will electrically transmit power to Bowling Green, a distance of thirteen miles. At several dams on the Kentucky River power will be developed for industrial plants at Lexington, Frankfort, Paris, Richmond and other points, and the third project looks to the utilization of power in the Cumberland River for transmission to Nashville, Tenn. In Kentucky, too, there has been considerable expansion this month in developing another source of power—oil. The most important of recently started work is the effort toward developing a deep oil sand in the Southern part of the State, and already an excellent strike has been made in Cumberland county in a 1,350-foot formation.

Building Elsewhere.

Permits at Atlanta, Ga., representing \$479,147; at Birmingham, Ala., \$77,566; at Chattanooga, Tenn., \$94,005; at Nashville, Tenn., \$128,617, and at Louisville, Ky., \$177,602. Indicate considerable activity in building operations in the South in January. This activity is emphasized by the fact that in Waycross, Ga., with a population of 5,500 persons, hundreds of dwellings are being built, additions are being made to schools, the foundation of a \$50,000 Young Men's Christian Association building has just been laid, a \$50,000 college is in course of erection, ground has just been broken for a \$150,000 hotel, and the roofs of several of the buildings of the railroad shops are nearing completion. At Tampa, Jacksonville and Fernandina, Fla., and at Savannah, Ga., between \$2,000,000 and \$3,000,000 are being spent upon railroad terminals, including the construction of elevators, machine shops, fire-proof warehouses and shops. Other Southern developments of the week include the completion of an addition to a foundry plant at Knoxville, Tenn., doubling its capacity at a cost of \$45,000, and enabling it to turn out car wheels and ballast cars. In the same city there is under way at a cost of \$50,000 an enlargement of water works at Winolesing, Va., the capacity of a mill at Anniston, Ala., is to be quadrupled in the manufacture of cotton yarn, twine and rope, and a \$100,000 company has been organized for the construction of a cotton mill, either at Brownwood or at Fort Worth, Texas.

In North Carolina.

A plant on the river front at Newburn, N. C., including a four-story, 52x72-foot digester building, a 36x225-foot paper machine building, and a brick boiler-house with equipment of 400-horse-power, is preparing to begin the manufacture of Manila wrapping paper and of paper pulp for Northern mills, intending to go into the manufacture of writing paper later on. An expenditure of \$50,000 has been authorized for additions to a calico print works at Winolesing, Va., the capacity of a mill at Anniston, Ala., is to be quadrupled in the manufacture of cotton yarn, twine and rope, and a \$100,000 company has been organized for the construction of a cotton mill, either at Brownwood or at Fort Worth, Texas.

511,411 Aliens Come to U.S.

WASHINGTON, February 16.—A statement just made public at the Department of Commerce and Labor shows that 511,411 aliens were admitted at ports of the United States in the six months ended January 31st last. For the same period in 1906 the number was 368,110. Immigration from Russia continues to increase. The number of immigrants coming from that country in the six months ended January 31st last was 113,330, as compared with 73,130 in the six months ended January 31, 1906.

\$15,000,000 Oil Dividend.

Directors of the Standard Oil Company yesterday declared a quarterly dividend of \$15 a share. This compares with a dividend of the same amount in the corresponding quarter last year and with \$19 per share three months ago. It calls for a payment of \$15,000,000 to the stockholders.

COPPER STOCKS AT \$1,000 A SHARE

Calumet and Hecla Reach the Record of Top-Notch Prices.

NEW YORK, February 16.—Stock of the Calumet and Hecla Copper Company, known as the premier copper concern in the United States, sold yesterday in Boston at \$1,000 a share. This price is the highest on record at which any copper stock has sold either in New York or Boston. Its par value is \$25 a share, and it is quoted on the percentage basis of the New York Stock Exchange the price would be \$4,000 a share. It closed at \$90.

In the great copper boom of 1899 the stock sold at \$95, which was a record price at that time. In 1901 it sold at \$35. The price of copper, which is now above 25 1/8 cents a pound for lake, has given the Calumet and Hecla enormous profits in its output. The product is almost pure in its native state, and is so largely sought by consumers that a premium is paid for the "lake" copper.

The dividends have enriched its stockholders to such an extent that the name Calumet and Hecla is one to conjure with by mining promoters. It has paid as high as \$100 a share

in annual dividends, or \$400 per cent. This dividend was paid in 1899.

Within the last few weeks the reports are accepted as correct that the Calumet and Hecla is branching out and is buying an interest in several companies adjacent to its properties. The mines are now several thousand feet under ground, and the cost of operation is becoming higher. Among the mines adjacent, while it is understood the Calumet and Hecla has been buying into, are the Allouez and Centennial.

CHANGES SYSTEM.

Double-Entry Bookkeeping Will Supplant Antiquated One.

WASHINGTON, February 16.—The Treasury bookkeeping system is about to be reorganized in accordance with recommendations made to the President by the Keap Commission. The single entry plan for keeping accounts has been used in the Treasury for many years. It is about to be supplanted by the double-entry system.

Complaint is made that under the present accounting plan of the Treasury it is impossible to strike balances. In addition, it is alleged that loopholes are left open to fraud on account of the methods used in handling vouchers of disbursing officers.

The subject of the Treasury bookkeeping was discussed in a conference held today between a committee, representing the American Association of Public Accountants and Assistant Secretary Murray, of the Department of Commerce and Labor, the senior member of the Keap Commission.

ELECTRICITY TO BE CONSIDERED

No House, Whether for Business or Residence, Is Complete Without It.

W. A. Chesterman, who has built some of the most prominent public buildings in Richmond and other cities in this and other States, as well as some of the most costly and handsome private residences, and quite a large number of smaller dwellings, is recognized as one of the most expert contractors in the South on sanitation and comfort in buildings. The State Capitol, State Library, Chesterfield Apartment House, Y. M. C. A. and other prominent public buildings and factories in Richmond, are monuments to his skill in construction.

When asked yesterday what he believed to be the most necessary of all modern equipments in a house, Mr. Chesterman said electricity. In speaking of this matter, he said:

"I have not built a house in the last two or three years of any kind without wiring it for electricity. The stride that this unseen and valuable current has made in a few years has far exceeded that of gas. Just think, in 1823 the inventor of gas would not be allowed to install his invention in New York."

(Continued on Second Page.)

LANDS FOR FRUIT IN OLD VIRGINIA

Southwestern Section Particularly Adapted to Fruit and Vegetables.

HOW PROFITS FIGURE OUT

Vegetables and Fruits Readily Find a Good Home Market Among Miners.

[Special to The Times-Dispatch.]
STRATTON, VA., February 16.—No doubt that the people of this country have never for one moment thought of the advantages that this community have for fruit-growing and other crops. Almost any crop that can be grown in the temperate zone can be grown in this section. The most important industry in this section at the present is the growing and marketing of all kinds of fruits, such as apples, pears, peaches, grapes and many kinds of small fruits. There is not finer fruit brown in the world than is produced on the famous Sandy Ridge in Dickenson, Wise and Russell counties. The above section is situated near the famous Toms Creek and Lick Creek coal fields, that are inexhaustible in extent. The companies that operate these mines employ thousands of miners each year, and their number is steadily increasing from year to year, and it will be but a short while till this will be a densely populated section. These miners are great consumers of all kinds of fruits and will gladly pay \$1.25 per bushel for apples and from \$2.00 to \$3.50 per bushel for peaches, and fancy Theaples. These companies buy hundreds of bushels of apples and peaches and thousands of gallons of berries each season, and this consumption must increase each year instead of decreasing, for it will be years before the coal has been mined from these mountains. To give you an illustration of what could be made by developing this country in the right manner I will give you some figures as given by Mr. Noah W. Berry, who has given this subject long thought.

How It Pays.
"Taken as a basis one acre of land set in apple trees, seventy-two trees to the acre, will cost \$75, land included, and the rent of the land ten years will cover the cost of caring for the trees. The trees will have increased in value \$1 per acre per annum. On the sixth year the trees will produce two bushels of apples per tree, at \$1.25 per bushel will be \$250; on the eighth year they will produce 300, at \$1.25 will be \$375; on the tenth year they will produce 575 bushels, at \$1.25 will be \$718; and the trees will have increased in value to \$700, they would have a net profit of \$700. The next ten years will produce 875 bushels per acre, at \$1.25 per bushel would be \$1,093.75. Cost of marketing same would be \$1,800, which would leave a net profit of \$2,700 for the next ten years."

This is a very conservative estimate for one acre, and if any one would start to work now, and set several acres in fruit trees, in ten years, at the first estimate, they would have netted a profit of \$7,000 on fifty acres set in fruit trees. Besides these profits, while the fruit trees are becoming of bearing age, one can set the same ground in such fruits as row of peaches between each row of apple trees, and also raspberries, strawberries, and fruits of the like kind, which can be sold at twenty-five to thirty cents per gallon. Any one wanting to invest in a paying business could not do better than to invest in fruit-growing in the above-named section. Such a complete failure of a crop of fruit is never known in this section. The fruit that is grown on this mountain is unequalled anywhere in this country in color and flavor.

Sale for Vegetables.

Besides this being a fruit-growing country, there can be grown all kinds of vegetables, that will find a ready sale at a fancy price to the miners. These are cabbage, turnips, potatoes, and all like vegetables thrive well in this locality.

This mountain and the surrounding country is covered with all kinds of valuable timber, and the supply of it is almost inexhaustible in extent. Some of the finest coal in the world is mined from this section, and when the new South and Western Railroad is completed through Dickenson, this section will then blossom as the rose.

The people of this community are kind-hearted and generous, and are ever ready to help any enterprise that will develop the country. There are good free schools, with competent teachers, and in these mountains, where the people have fresh air to breathe and plenty of sunshine and exercise, there will arise some of the greatest men and women that ever lived in any country. I am glad to see this country prospering as it does, and hope that in the next ten years there will be some of the best fruit in this country that can be found anywhere, and that this may be a place of push and energy.

Would Make Public Blame.

NEW ORLEANS, February 16.—As a preventive for railroad accidents, complete publicity is suggested by Julius Kruttschnitt, director of maintenance and operations of the Harriman lines and vice-president of the Southern Pacific. In an interview today he said: "The persons responsible for accidents, whether officers or laborers, should be known to the public, in order that they may be made to feel the weight of popular displeasure."

"We must bring about a closer observation of the rules governing the operation of the railroads, and a greater respect for danger signals than we now get from our employees. This can be done only by the widest publicity of accidents."

REAL ESTATE AND BUILDING NEWS

Increased Activity—More Inquiry for High-Priced and Well-Located Realty.

HOUSES WANTED BY MANY

Several Large Deals Made That Seem to Mean Great Industrial Development.

The real estate men have not been especially busy during the past week, but they have not been idle. A number of small sales have been consummated and considerable effort has been made to move some of the larger deals that are said to be "on the string" up to a point nearer to consummation. It may be that some of these latter efforts have been successful, very likely they have been, but the men who are in charge of the deals are very reticent and will not allow their left hands to know just what the right limbs are doing. If they are particular as regards the information that goes from one side of the body to the other, it is not hard for the reader to realize how hard it is for a newspaper man, whose business it is to tell the public all he knows, to get any definite information direct from the men who are in charge of real estate deals. They simply will not tell about their deals until the deals are entirely closed and the papers have gone to record.

Very few papers have gone to record during the past week, and none that tell the tale of heavy transactions. The record in the columns of the newspapers for a week past have been on the small order, but that is not necessarily evidence that there has been nothing doing. Great transactions may possibly have been taking place, but they have not touched the dead-recording point.

In fact, there is abundant evidence—evidence, however, that cannot now be recorded in the columns of the newspapers—that large deals have been made within the past week or ten days. These deals are said to involve a good deal of property in the Lee District and in the South End. Some of it is to be utilized as manufacturing sites and much of it for residences.

There is something going on behind the closed doors of several real estate agencies that is of considerable interest. West End property, but the real estate agents who know about these things will not tell all they know, and the principals in the deals will not even admit that they know anything to tell.

New Horse Show Building.

Take, for instance, the sale of \$20,000 worth of property on the Broad Street near the old fair grounds, to Mr. O. H. Berry. Last Sunday The Times-Dispatch printed the available details of this sale, and all that it could say was that Mr. Berry had purchased a horse show building. There has been a lot of talk about the probable destiny of this property. There is a well-grounded rumor that Mr. Berry has associates who are very anxious to develop a horse show business, and that the property was bought for horse show purposes.

The Times-Dispatch man had a talk with a confidential friend yesterday, who generally knows what is going on, and at least he thinks he does. This friend said this rumor in regard to the horse show business had much in it. In fact, he felt assured that Mr. Anderson, the president of the Horse Show Association, had been seen by Mr. Berry in the deal, and that the purchase of the Broad Street property near the old fair grounds simply means that the largest and best-equipped horse show building in the United States will be located in the Lee District in Richmond in ample time for next fall's horse show. This friend further said that he was almost willing to swear that architects are already at work on the plans and specifications for the horse show building.

Mr. Berry, who bought the property and paid nearly \$25,000 cash for it, and in whose name it now stands, was again very reticent, and refused to divulge a single thing. He only gave a smile when asked for a direct answer to the horse show interrogation point. The smile may have meant yes or no, but there was a kind of wrinkle in it that seemed to say to the news man who was doing the questioning that the horse show guess was pretty good. Anyhow, Mr. Berry did not positively deny the rumor.

Another Unfinished Deal.

Among the larger deals of the past week was the purchase by Mrs. E. D. Myers, Jr., of a tract of land lying on the Boulevard. A deed that was recorded only yesterday revealed this transaction. The deed conveys from John F. French, Jr., to Mrs. Myers, four and one-fifth acres of land, and the consideration named is \$7,327. The property lies near the intersection of the Boulevard with Broad Street Road, not far from the intersection of Fredericksburg and Potomac tracks.

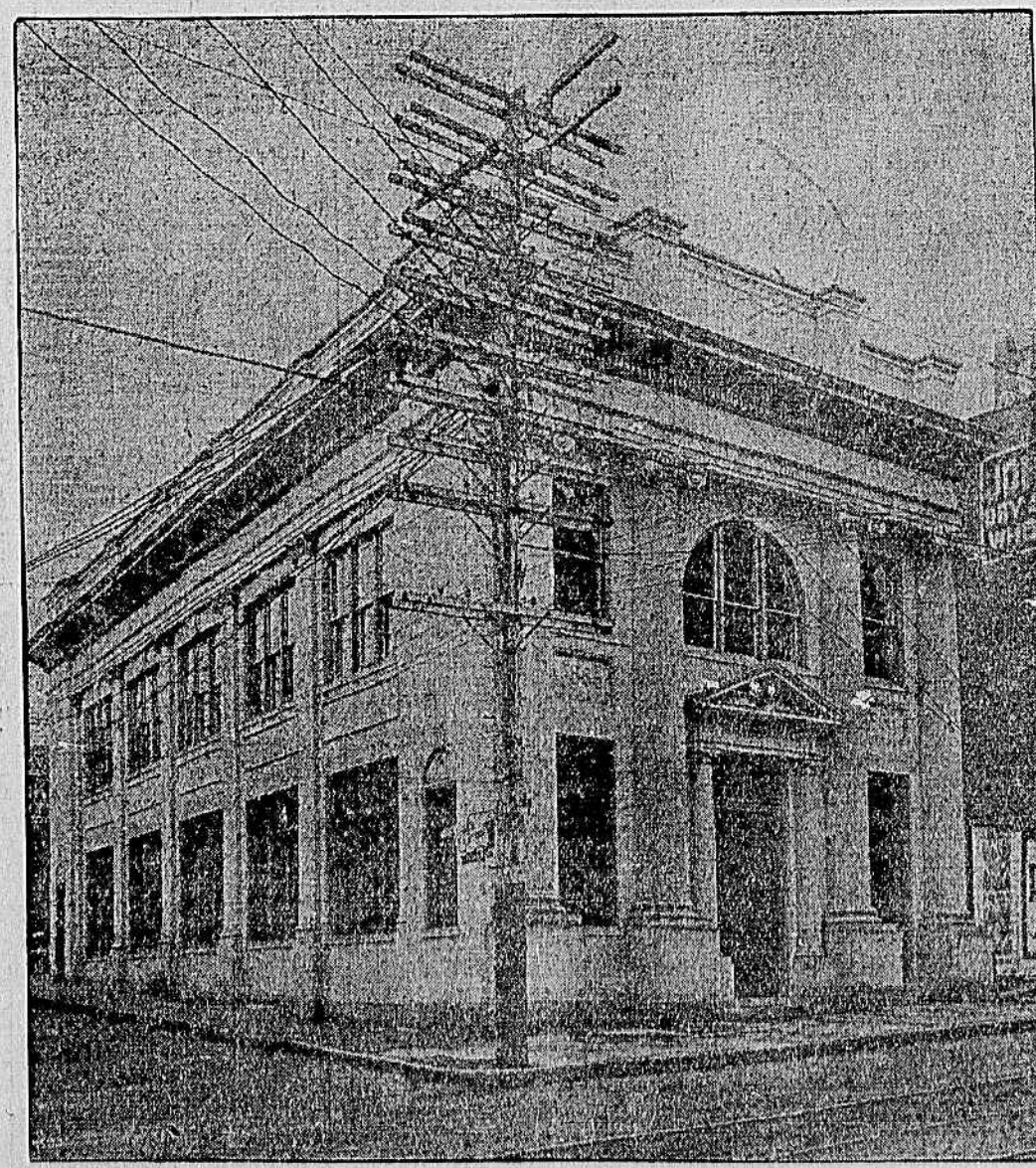
The property borders the Broad Street Road for a distance of 23 feet, skirts the Boulevard for 62 feet, and constitutes the central body of the triangle formed by the intersection of the Boulevard, the Broad Street Road and the Richmond, Fredericksburg and Potomac tracks.

Costly Clubhouse.

The fact that the Jefferson Club has practically bought a splendid property at the southwest corner of Allison Avenue and Grace Street has already been published in this paper, and the active members of that club have been importuned all the week to tell what they are going to do with it. Of course they are going to build a clubhouse on it, and it is said the plans have already been drawn. The house will be an up-to-date, modern structure, and the present calculation is that it will cost something like \$20,000, possibly as much as \$25,000. This magnificent building is to go up on the corner diagonally opposite the handsome residence of Mr. J. B. Mosby.

The building operations in the West End and along the streets and avenues of the Lee District seem to know no end. A well-known real estate man is the Times-Dispatch man's authority for the statement that with the opening of spring forty-four houses will be commenced on Harrison Street and

NEW HOME OF PETERSBURG BANK



This is the new home of the National Bank of Petersburg, Va., at Sycamore and East Tabb Streets. The bank moved into this building on Monday, February 11th. The upper floor is occupied by the legal department of the Atlantic Coast Line Railroad Company.